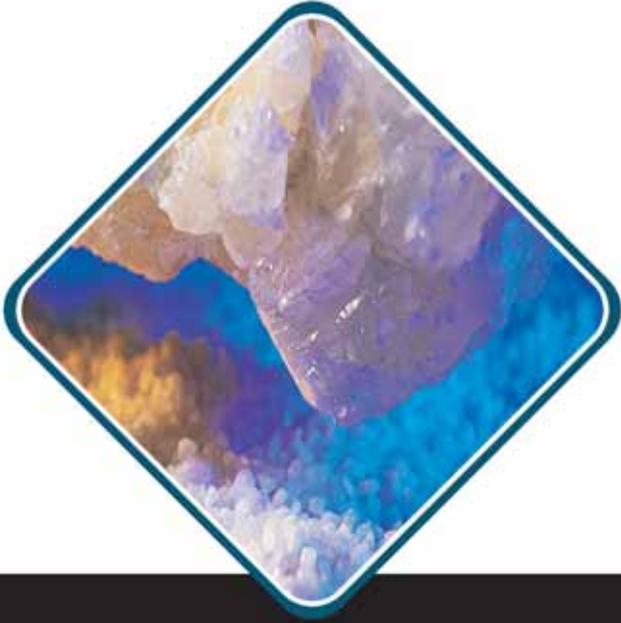




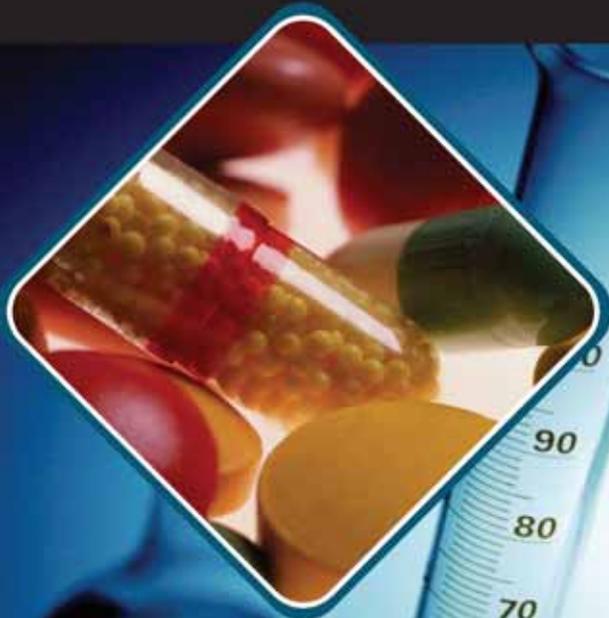
REPUBLIC OF TURKEY
MINISTRY OF ECONOMY



INDUSTRY



CHEMICALS



TURKEY

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CHEMICAL INDUSTRY IN TURKEY

Chemicals are indispensable to modern life and the development of the chemical industry has helped to elevate the standard of living, an indicator of the level of industrialization in a country. Chemical industry products contribute significantly to growth in other industrial sectors.

At the beginning of the 20th century there were a few chemical establishments, manufacturing soap, liquorice extract, valonia extract, etc, within the boundaries of the Ottoman Empire. From the establishment of the Republic of Turkey up to the 1950s, these chemical works passed through a process of corporation and production began in some fields such as explosives, medicine, agricultural chemicals, detergents, printing ink and textile dyes and involved the final stages only. It was only after the 1950s, especially during the planned economy period, that the development of the chemical industry in Turkey accelerated. Between 1960 and 1980 economic policies were based on import substitution and public sector investments were directed to petrochemicals, fertilizers and basic organic and inorganic chemicals, the fields which required high investment, with low profitability whereas private sector and foreign investments were directed to pharmaceuticals, synthetic yarns, soaps and detergents.

In 1980 Turkey started to follow a new export-oriented economic policy. As a result of these successful policies, production and exports of the manufacturing sector boomed. The chemical industry, likewise, benefited from the new economic policy and showed an impressive increase both in production and exports.

Today, the Turkish chemical industry with its modern technology and diversified products is the key component of industrial production and integrated into the supply chain of national industries, especially, textiles and automotive sectors.

PRODUCTION

Turkey has been manufacturing chemicals for a very long time, being a producer of many basic and intermediate chemicals and petrochemicals. Turkish chemical production includes petrochemicals, inorganic and organic chemicals, fertilizers, paints, pharmaceuticals, soaps and detergents, synthetic fibers, essential oils, cosmetics and personal care products. The majority of chemicals production is done by the private sector.

In chemical industry, 30% of the production has been directly used by the consumers whereas 70% of production has been utilized in other sectors as intermediate goods and raw materials. Turkish chemical industry has been seen as a sector dependent on imports as regards to raw materials and technology. However, Turkey is among one of the leading countries in the world that has boron, chrome, soda ash and trona reserves.

The chemical industry, together with the sub-industries such as plastics and rubber, employs nearly 200.000 people and has about 6,2 thousand companies manufacturing various chemicals. Very small percentage of the existing companies has more than 150 employees. Most of the companies in the chemical industry, especially private sector companies, are located in Istanbul, Izmir, Kocaeli, Sakarya, Adana, Gaziantep and Ankara.

Turkish chemical industry has developed significantly in terms of quality, productivity and protection of the environment, and is in the process of adopting the EU's Technical

Standards. In addition, the responsible care, the chemical industry's trademarked non-compulsory initiative on environmental, health and safety issues has been successfully implemented since 1992.

Turkish petrochemical industry has shown considerable growth since 1970. As an upstream producer, TÜPRAŞ (Turkish Petroleum Refineries Corporation) operates as the only integrated Refinery in Turkey with its 4 refineries in Izmit, Izmir, Kırıkkale and Batman. On the other hand, as a downstream producer, the unique company in the Turkish petrochemical industry is PETKİM Petrokimya Holding A.Ş. which is the only integrated petrochemical complex in Turkey that operates in Petkim-Aliağa complex in Izmir. In PETKİM's Aliağa complex, a wide range of petrochemicals, all common plastics (HDPE, LDPE, PS, PVC, and PP), aromatics, ethylene glycol, phthalic anhydride, terephthalic acid, carbon black, synthetic rubber, acrylonitril and caustic soda are produced. The total production of these petrochemicals meets about 30% of domestic demand.

Since the textile sector is a well-developed sector in Turkey, polymer production related to textiles and the production of textile chemicals have also developed simultaneously. Large plants for the production of polyamide, polyester and acrylic fibers have been built and production has been directed to both the foreign markets as well as the domestic market. Almost all synthetic fibers are produced by the private sector and synthetic fiber production is around 850 000 tons/year.

The fertilizer industry is one of the key industries for Turkey, which has vast agricultural potential. The first independent fertilizer plant commenced production in 1954 and heavy fertilizer investments were realized between the years 1960-1970. Today there are seven major companies producing fertilizers exclusively: Tugsaş, Igsaş, Bagfas, Toros Gübre, Ege Gübre, Akdeniz Gübre and Gübre Fabrikalari, which are all private enterprises.

Pharmaceuticals, soap and detergents, soda, chromium chemicals, boron chemicals, paints, sodium sulphate, fatty acids and rose oil are the other main areas of production of the chemical industry.

The pharmaceuticals industry has become one of the leading sectors of the chemical industry. Production trends of pharmaceuticals are closely related to domestic demand. Turkish pharmaceutical companies manufacture a wide range of pharmaceutical products, mostly generic formulas. The number of pharmaceuticals on the market is over 3000; if alternative posologies are included the number is over 7000. Domestic industry meets 90% of the pharmaceutical demand but new pharmaceuticals, such as ones for cancer, vaccines and hormones are imported. The pharmaceuticals industry produces many active ingredients of pharmaceuticals, primarily antibiotics and analgesics, by using fermentation, extraction and synthesis methods. The major characteristics of the pharmaceuticals raw materials industry are that mainly private companies invest in the sector and the existing production capacity can easily be shifted to various production lines. It is worth mentioning that the Afyon Alkaloids Factory produces 20% of the morphine consumed by pharmaceuticals industries all over the world.

The Turkish soap and detergent industry has shown very good performance in terms of quality, capacity and exports. There are many companies in the soap and detergent industry, about 15 of them being the major ones; among these there are multinational groups which have worldwide reputations. Since 1990 domestic and foreign investments in the Turkish cleaning products industry have increased considerably. Since Turkey has a large variety of herbs and natural products, natural soap production is also widespread

and done by small size local companies throughout Turkey. World famous “laurel soaps” are produced in large quantities in Mersin, Antakya and its surrounding regions. Turkey is also among the top producers of olives, therefore natural olive oil soaps are also manufactured and exported in large quantities.

The consumption and production of cosmetics and personal care products are growing rapidly. The number of cosmetics and personal care products is increasing every year. Hair care has the largest share of the cosmetics and personal care products market in Turkey. Shampoos represented around 59% of hair care products. Men’s grooming products, depilatories, bath and shower products especially bar soaps, lip and eye make-up, personal deodorants and antiperspirants, perfumes, cologne and other toilet waters, baby care products and dentifrices are the main products. Natural cosmetic production is on the rise due to growing demand for these products.

Parallel to the developments in Turkey’s construction, automotive and marine industries, the paints and coatings industry has also developed and has become one of the most dynamic sectors of the Turkish chemical industry. Today the industry produces about 800 000 tons/year of paints and coatings and is comprised of about 600 manufacturers, more than 20 of which are large-scale companies. In addition to meeting domestic demand, the Turkish paint sector has recently tended to export more.

Turkey has the largest soda factory in the Middle East with a total capacity of 750 000 tons/year. In addition to light and dense soda ash, refined sodium bicarbonate and sodium silicate are produced at the Mersin plant. An extremely rich trona (natural soda ash) deposit was found near Ankara, at Beypazari, and at present Turkey has substantial export potential for soda ash. Eti Soda A.Ş. has started operation in 2009 and 1 million tons/year soda ash will be produced.

Being among the top five countries supplying chrome ore to world markets, Turkey produces and exports some of the most important chrome chemicals and derivatives such as sodium bichromate, basic chrome sulfate, chromic acid and chrome oxide.

Turkey also enjoys a comparative advantage in boron chemicals (borax decahydrate, borax pentahydrate, boric acid and sodium perborate) due to the size of her reserves, the quality of minerals and proximity to consumer markets. Eti Maden İşletmeleri Genel Müdürlüğü is the dominant producer of boron minerals and boron chemicals and the sole-exclusive exporter of boron chemicals.

Turkey has developed a substantial capacity and production of sodium sulphate. In sodium sulphate production, Turkey ranks among the top producers in the world. Owing to Turkey’s climatic and ecological conditions, many medicinal and aromatic plants are cultivated or gathered from nature. Turkey is one of the most important rose oil exporters in the world market. The majority of these exports originate from the Isparta region. Laurel oil, thymus oil, lavender oil and origanium oil are also produced in Turkey.

In conjunction with recent industrial growth in Turkey, the consumption and production of many other chemicals are growing rapidly and the number of chemicals produced is increasing every year. The recent developments in textile and leather chemicals are also worth mentioning and many small and medium size companies have recently started to operate in these two sectors. In the Turkish chemical industry, there are more than 300 companies with foreign investment. The Turkish chemical industry has a share of nearly 15% of total foreign capital in Turkey.

EXPORTS

Turkey's chemical industry exports are increasing steadily. In 2011 the chemical industry was one of the important exporting sectors among total industrial exports. The value of chemical exports was about US\$ 17,1 billion in 2011, or about 12,71% of the total exports (134,9 billion dollars) in Turkey.

Export Product Groups of Chemical Industry (Value: US\$ 1,000)

Code	Product label	2009	2010	2011	Major Export Markets in 2011
2705-2715	Mineral fuels, oils, distillation products	3.759.679	4.217.292	6.254.225	Egypt, UAE, Malta, Cyprus, Syria
28	Inorganic chemicals, precious metal compound, isotopes	611.630	930.971	1.216.121	China, Italy, USA, Belgium, Spain
29	Organic chemicals	347.686	520.326	545.275	Italy, Spain, USA, Germany Greece
30	Pharmaceutical products	429.017	558.281	566.827	Switzerland, Germany, Iraq, UK, Cyprus
31	Fertilizers	83.678	205.587	200.598	Romania, Brazil, Spain, Kenya, Italy
32	Tanning, dyeing extracts, tannins, derivs, pigments etc	428.512	532.754	611.819	Iraq, Iran, Azerbaijan, Russian Fed., China
33	Essential oils, perfumes, cosmetics, toiletries	418.251	492.057	558.881	Iraq, Iran, Russian Fed., Germany, United Arab Emirates
34	Soaps, lubricants, waxes, candles, modeling pastes	647.738	678.234	767.875	Iraq, Russian Fed. Azerbaijan, Israel, Iran
35	Albuminoids, modified starches, glues, enzymes	75.041	94.368	135.675	Iran, Iraq, Azerbaijan, Russian Fed., Syria
36	Explosives, pyrotechnics, matches, pyrophorics,	11.952	15.581	18.306	Georgia, Iran, Greece, Germany, Iraq
37	Photographic or cinematographic goods	11.298	14.048	17.496	Iran, Iraq, Cyprus, Germany, Poland
38	Miscellaneous chemical products	320.245	399.848	451.672	Russian Fed., Azerbaijan, Iran, Iraq, Egypt
39	Plastics and articles thereof	3.093.215	3.717.427	4.581.180	Iraq, Germany, Russian Fed., Iran, Azerbaijan
4001-4010&4014-4017	Rubber and articles thereof	643.338	898.798	1.210.338	Germany, USA, Italy, France, Netherlands
	Chemicals and Related Products Total	10.881.280	13.275.572	17.136.288	

Source: ITC Trademap

Excluding mineral fuels and oils, major export products of the Turkish chemical industry were plastics and articles made of plastics with an export value of US\$ 4,6 billion in 2011. The second major export product was inorganic chemicals, precious metal compound, isotopes with an export value of US\$ 1,2 billion. Other major product groups were; rubber and articles made of rubber (US\$ 1,2 billion) and soaps, lubricants, waxes, candles, modeling pastes (US\$ 768 million).

Turkey is exporting all these chemicals to about 190 countries all over the world. Major destinations for chemicals in 2011 were Egypt, Germany, the United Arab Emirates, Iraq, the Russian Federation, Italy, the United Kingdom, Iran and Malta.

The Chemical Industry Exports by Countries (Value: US \$ 1,000)

Country	2009	2010	2011
Egypt	388.885	483.290	1.126.445
Germany	617.930	752.908	954.546
U.A.E.	269.658	467.300	949.045
Iraq	512.645	709.655	933.626
Russian Federation	440.308	620.256	730.207
Italy	471.586	479.715	611.132
United Kingdom	367.519	481.855	564.792
Iran	262.169	511.013	534.737
Malta	98.801	85.196	478.325
T.R.N.C.	290.631	347.932	441.680
Greece	252.291	303.752	433.333
Romania	320.627	380.309	420.193
U.S.A.	281.277	416.728	419.386
Azerbaijan	297.049	339.459	415.501
China	259.867	318.208	409.251
Syria	282.302	627.749	390.475
Holland	143.364	207.612	382.093
Ukraine	253.446	293.988	356.609
France	192.830	253.669	332.212
Spain	187.197	257.231	302.601
Others	4.690.900	4.937.749	5.950.101
Total	10.881.280	13.275.572	17.136.288

Source: ITC Trademap

TRADE FAIRS

Major fairs in the Turkish chemical industry in 2012 are as follows:

- AYSAF 8. International Footwear Industry Suppliers Fair in Istanbul, 29 Feb-3 March 2012.
- Chemistry, Chemical Industry, Chemical Products - Heating, Cooling, Ventilation, Natural Gas And Systems, Building and Building Materials, Bathroom, Kitchen, Ceramics, Ironmongery, Hardware, Installation, in Istanbul 13-15 September 2012.
- Chemistry, Chemical Industry, Chemical Products - Leather Technologies, Leather Products, Leather Garments, Footwear, in Istanbul, 3-6 October 2012.
- TURKCHEM'12 (Chemicals, Laboratory and Technology) in Istanbul on 11-14 October 2012.

USEFUL LINKS

- Turkish Chemical Society
<http://www.turchemsoc.org/tr/>
- Turkish Chemical Manufacturers Association
<http://www.tksd.org.tr/>
- Istanbul Chemicals and Chemical Products Exporters' Association
<http://www.immib.org.tr/en/>
- Akdeniz Chemicals and Chemical Products Exporters' Association
www.akib.org.tr



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